

ST. BARTHOLOMEW'S HOSPITAL JOURNAL



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EDITORIAL

As this issue of the *Journal* goes to press, the report of the Royal Commission on Doctors' and Dentists' Remuneration has just been published. Sir Harry Pilkington and his colleagues have completed their task after three years of sifting evidence from various sections of the Medical Profession. There has been no time yet for a detailed appraisal of the report, but a number of interesting points have emerged.

From the student point of view, one of the most important aspects of the report is the encouragement given to junior hospital staff. The Commission reports "The young doctor, under thirty years of age, has been underpaid to a relatively greater extent than older doctors . . ." The proposed rates of £675 p.a. for the first House job and £750 p.a. for the second should do much to dispel the sense of injustice felt by many in what often seems to be regarded as a year of pre-registration drudgery. It will also lighten the burden of the newly qualified doctor who is thinking of getting married.

Looking further ahead, the revised scheme for consultant merit awards should be a further incentive to young men to proceed to second degrees, and may well help in the recruiting of suitable new members of the profession. It seems a pity, however, that the number of such awards is to be fixed for

the next three years, irrespective of the number of consultants who are eligible.

The award to General Practitioners of a 22.8 per cent rise over a recalculated 1955-56 level is most welcome, and although Professor Jewkes, in his minority report, says that a 30 per cent rise was required to prevent an overall fall in the G.P.'s standard of living during the last decade, it should be noted that he condemns retrospective payments and would have no truck with the £11 millions to be set aside so that increases may be back-dated to 1957. The idea of merit awards for outstanding general practice is also to be warmly commended. Provided a system of award can be agreed upon, the stage is set for the emergence of the consultant G.P., and this should help to dispel the notion, all too commonly held, that general practice is a collecting ground for those who could not make the grade in hospital: a sphere in which mediocrity prevails and ability goes unrewarded.

In order to keep the matter of doctors' and dentists' remuneration under review in the light of changing economic conditions, the Commission proposes that the existing arrangements for negotiation should be replaced, except for minor issues, by a Standing Review Body to be composed of seven "eminent persons of experience in

various fields of national life." These seven are to be appointed by the Government, after consultation with the medical and dental professions, and the Review Body will be responsible direct to the Prime Minister instead of the Minister of Health. The Review Body is not to include members of the medical or dental professions, and moreover, the professions are debarred from any direct approach to the Review Body, which is permitted to act on its own or the Government's initiative only. Professional complaints have to be transmitted to the Body via the Government.

When the report has been more fully studied by the Government and the medical profession, negotiations will doubtless be opened. It seems unlikely that the B.M.A. will be satisfied with a Review Body constituted on the lines recommended by the Commission, being more inclined towards the suggestions of Professor Jewkes' minority report—namely, professional representation on and direct professional access to the Review Body. It is to be hoped that this will not become an issue on which what appears to be at first sight to be a very favourable report will founder.

Abernethian Society

Professor Titmuss, of the London School of Economics and Political Science, addressed the Society on Thursday, February 18th. His talk was entitled "The National Health Service: Some Reflections of a Layman."

He started with a brief outline of the various Health Services operating in the world and especially with reference to the United States, which he was able to contrast with our own. The chief distinction which he brought out was that ours is dependent on the universal effort of a population as a whole, whereas the American service is organised around a complex system of insurance.

The freedom within our own service is a very important feature. This is achieved at a cost of less than 4 per cent of the National Income. The cost of the Health Service has never been as high (when measured in terms of percentage of the National Income) as it was during its first year.

One point which it is interesting to remember is that a doctor in America has to pay the equivalent of £150 p.a. for Medical Defence, in comparison with £2 p.a. in this country. This is surely a good reflection on the service which we have. Professor Titmuss left us with the feeling that we had something which was potentially efficient, despite the inevitable imperfections which have shown themselves in the first few years.

The Officers of the Society for January to July, 1960, are:—

T. W. Meade, *President*: J. C. Crawhall, *Treasurer*: Miss J. E. Angell-James, *Secretary*. *Committee*, J. Scobie, P. J. Watkins, H. White and R. Wilson, *Pre-clinical Representative*.

The Harvey Society

"Falling cats and blinking men" was the title of a lecture given to the Harvey Society on Monday, February 11th, 1960, by one of its Vice-Presidents, Dr. D. A. McDonald. The major part of the talk was devoted to the research which Dr. McDonald had carried out into the subject of postural reflexes. It is quite familiar to students of physiology that this complex subject is illustrated in the textbooks by the ability of a cat to land on its feet regardless of the position from which it has fallen or jumped.

Other than cats and a Dunlopillo mat, Dr. McDonald had to obtain a high speed camera that would photograph the cats, dropped from an inverted position, at 1,000 to 1,500 frames per second. The reason such a high speed was needed is that cats are able to turn over in one eighth of a second.

Dr. McDonald outlined the history of the research into this subject, and then told the Society of his own results. He said that regardless of the position, a cat's body is in, it will tend to orientate its head into the normal vertical position, because of this the head of the inverted cat had to be held in position. The orientation of the head appears to depend on both optical and vestibular reflexes—a normal cat blindfolded is able to turn over normally, but shows a delayed response, whereas a cat with no vestibular reflexes is able to turn over with its eyes open but makes no attempt to right itself when dropped blindfolded. As the head turns, the forelimbs and back flex and the forepart of the body follows the head so that the body of a lithe cat may be twisted through 180 degrees at the waist. As the

hind part of the body now constitutes the smaller section of the whole, it is able to turn on the larger part enabling the cat to make "a perfect four-point landing." To illustrate his point, Dr. McDonald proceeded to invert two charming little kittens and drop them on to the demonstration bench. Luckily, they arrived the right way up.

The slow motion film was then shown. This was excellent, and illustrated Dr. McDonald's points perfectly. Although he could explain the mechanism of the cat turning in mid-air, Dr. McDonald is still unable to say how the reflex is triggered off and how the cats are able to counteract any "overshoot" that might occur.

The remainder of the film was devoted to human physiology, namely the blink reflex, the speed of athletes in response to the starter's gun, and a rather entertaining section on the waves of force travelling over a little boy's buttocks in response to a rather sharp smack!

The lecture was well received by a large audience, and stimulated several questions.

Ladies' Hockey Club Ball

The Hockey Club Ball is traditionally kept on the Friday nearest to St. Valentine's Day—this year, Friday, February 12th. On this occasion the Ball was organised by the Ladies' Hockey Club, under the leadership of Miss Elizabeth Knight. One of the main purposes of the evening was to pay a formal farewell to Dr. and Mrs. Blunt. Dr. Blunt has been a most active Vice-President of the Club for nearly four years, and no one has given us as much support as he has—not deterred by wind, rain or snow, he has turned out regularly to watch matches—friendly games as well as cup matches, and the sidelines will seem very empty next season without Dr. and Mrs. Blunt. Miss Knight thanked Dr. and Mrs. Blunt for their loyal support and for the interest they had taken in the Club, in her speech during the supper at the Ball. Miss Knight went on to wish Dr. Blunt happiness in his new job as Professor of Anatomy at a new university in Australia. They were then presented with a tartan travelling rug from members of the Ladies' Hockey Club. Dr. Blunt thanked the Club for their gift, and said he would continue his interest in the Club.

View Day Ball, 1960

The Ball will be held at Quaglinos on Thursday, May 12th, from 8.45 p.m. to 3 a.m. Music will be by Bill Savill's Band. Double tickets (limited to 300) may be obtained from: Miss Oxborrow (College Hall), Bert Cambridge (Williamson Lab) and Ball Secretary (Abernethian Room).

When applying, please give order of preference for supper sittings, which will be at 9.15, 10.15, 11.15 and 12.15.

Students' Union Council

At a meeting held on January 13th, honours colours for hockey were awarded to Dr. R. J. Chambers and Miss J. Swallow.

At a meeting held on February 10th, Mr. J. U. Watson was elected Publicity Officer of the Students' Union.

News in Brief

We hear, with deep regret, of the death in St. Albans of Canon Hudson. The Canon was a much loved figure at Hill End, where he will be remembered especially for his work during the war.

Sir James Paterson Ross has been appointed to succeed Sir Francis Fraser as Director of the British Postgraduate Medical Federation when the latter retires on October 1st.

Dr. H. Lehmann has been appointed to the Readership in Chemical Pathology in the University of London, tenable at the Medical College of St. Bartholomew's Hospital.

Dr. A. J. Marshall is to be the first Professor of Biology at Monash University, the newly established University in Victoria, Australia.

Dr. M. J. Blunt has been appointed to the Foundation Chair of Anatomy in the University of New South Wales.

We welcome the return of Professor J. Loewenthal, who has been invited to take over the Surgical Unit for a period of one month. Despite his youthful appearance, Professor Loewenthal has achieved great eminence in Australia, where he has built up a department of surgical research in the University of Sydney. Professor Loewenthal spent a year working with Sir James Paterson Ross in this Hospital after the war.

Professor J. Loewenthal gave a lecture entitled "Some Contributions to Surgical Research" before a large audience in the Clinical Lecture Theatre on Friday, February 19th.

Mr. A. E. J. Alment is at the moment working at the Northampton General Hospital. During his absence, Mr. B. Measday is fulfilling his duties.

We are glad to be able to welcome Miss Deal back to her duties as Sister Surgery, after an absence of some sixteen months.

Dr. Wykeham Balme has started a "Rheumatism Follow-up Clinic," which is to be held in the Physiotherapy Department on the second and fourth Wednesday afternoons in each month. One or two students are welcome at each session.

The Gilbert and Sullivan Society will give a concert performance of "The Mikado" in the Gresham Hall at 8.30 p.m. on March 26th.

The photograph in the January issue showing work in progress on the "L" Block was produced by the Department of Medical Photography, to whom we are much indebted.

Volunteers Needed

Volunteers are still required, especially during the winter months, for experiments at the Common Cold Research Unit. They must be between the ages of 18 and 45 and in sound health. Return fares are paid to a maximum of £3, and each volunteer receives 3s. per day pocket money during their stay.

Volunteers are housed in pairs or threes in self-contained flats, have access to a library and collection of indoor games, are provided with a radio, *Radio Times* and daily paper, and may go for walks in the country so long as they avoid outside contacts. A bottle of beer is provided free daily!

Anyone willing to offer their services should write to the Medical Superintendent, Harvard Hospital, Salisbury, Wilts.

Dedication Services

Dedication Services for doctors, nurses and others concerned with tuberculosis and diseases of the chest and heart have now been held annually for the last eight years. This year they will take place in London and Edinburgh on May 1st, and in Llandaff, Cardiff, on May 15th. The idea is to provide fresh inspiration for all who are concerned with the care of the sick, and to give an opportunity for spiritual re-dedication. The Services are of interest to all, even those who are not regular church-goers. All men of good will are warmly welcome. The speakers in London will be:—

Sir Selwyn Selwyn-Clarke, late Governor of the Seychelles (St. Martins in the Fields, at 3.30 p.m.).

The Revd. Peter Freed (Church of The Most Holy Redeemer and St. Thomas More, Cheyne Row, Oakley Street, S.W.3, at 4 p.m.).

Full details and Order of Service are available from The Chest and Heart Association, Tavistock House North, Tavistock Square, London, W.C.1.

Medical News from the U.S.S.R.

A delegation of Russian specialists is to attend the United States national conference on transplanting organs and tissues. Two experts who specialise in skin grafting are to read papers to the conference.

The Soviet Union is to give technical assistance to the United Arab Republic in the building of plants to produce antibiotics and other pharmaceutical products. Experiments are already in progress on the production of nutrient media from Egyptian raw materials.

Professor Nikolai Blokhin, director of the Institute of Experimental and Clinical Oncology, has been elected president of the U.S.S.R. Academy of Medical Sciences. His predecessor, Alexander Bakulev, "asked to be released from the post of president" after a six year tenure of office.

The preliminary figures of the Russian census of 1959 are now available, and though a detailed breakdown has not yet been published, some interesting facts have emerged. The total population of the U.S.S.R. stood at 208,826,650, of which 94,050,303 were males and 114,776,347 females, i.e. a surplus of females amounting

to just over 9 per cent of the population. In age groups up to 19 years the number of males exceeds that of females. From 19 to 29 numbers are roughly equal and in all age groups above 29 there is an excess of females.

When the population is broken down into five year age groups it is possible to see the effects of the 1917 revolution and the last war, generations aged 20 to 30 at the time of these upheavals being notably reduced when compared with preceeding and succeeding generations. The last war also caused a sharp fall in the birthrate, but this was in part offset by the improvements effected in child welfare which have reduced the death rate in children under four years of age from 7.6 per cent in 1939 to 1.2 per cent in 1959. A general fall in the overall mortality rate has increased the expectation of life from 32 years in the pre-revolution days to 68 years in 1957-58.

Russia also claims to have the highest number of marriages, per 1,000 of the population, in the world. The figures given are: Russia—more than 12 per thousand per year, U.S.A. 8.3, Great Britain 7.6 and France 7.

In the field of education, the number of people with higher, incomplete higher and specialised secondary education is 13,400,000, compared with 290,000 people in the same categories in 1913.

"Henry V" at the Mermaid Theatre

"An essay in War" is how the Mermaid Theatre's latest production, *Henry V*, in *Modern Dress*, is described in the programme. Essay or not, Will Shakespeare probably turned in his grave on the opening night. The plot was there, but little else for those who like their Shakespeare *à la Stratford*. One is treated to an opening somewhat reminiscent of an American musical, with scantily clad females doing the Charleston. Then Henry, immaculate in cricket gear, appears from the nets and the game is on, a "restless peace leaps into war" and, in the space of two hours, we see cowardice, courage, companionship, bloodshed and mutilation, guns roar, air raid sirens moan. We glimpse the terrible aftermath of War with victory wrenching peace back to a tattered land.

The production is rather like a machine gun too staccato, inasmuch that the pruning

has blasted out the flowing continuity of the original and much of the beauty of the words is lost.

If you forget that this is *Henry V* and look upon the King as an old Cheam man, Bedford and Exeter as old Etonians, Fluellen as a front row forward who played for Aberdovey, and appreciate the line of Katharine, you'll enjoy this. I'm sure Shakespeare would have done so.

J.W.

Fifty Years Ago

In addition to the figure of Saint Bartholomew which Leonardo da Vinci depicts in his fresco "The Last Supper", we are told in the *Journal* of fifty years ago that the cathedral at Milan has a fine sculptured figure of St. Bartholomew, "apostle, martyr and Patron of St. Bartholomew's Hospital, London, and other Hospitals." The striking marble figure so interested an old Bart's surgeon on his travels home from India that he sent a short historical sketch of our Patron Saint to the *Journal*.

St. Bartholomew is depicted in this instance "carrying like a mantle his own flayed-off skin, and is not anatomically above criticism." On the base is an inscription "warning the reader, with triumphant conceit, not to mistake it for the work of Praxiteles, the renowned Greek sculptor, for Marc D'Agrate was the author—'Non me Praxiteles sed Marc finxit Agrate . . .'"

St. Bartholomew is mentioned by St. Matthew (Matt. X, 3), St. Mark (Mark III, 18) and St. Luke (Luke VI, 14) in the list of the apostles, and he is the sixth mentioned apostle in each case. St. John mentions no Bartholomew, but he gives the sixth place to Nathaniel Bar Tolmai.

There is a tradition that he (St. Bartholomew) travelled to India preaching the Gospel and gained a reputation for healing. One belief is that St. Bartholomew was martyred at Derbend on the Caspian Sea (a carpet making centre now). "He is said to have converted to Christianity the Prince's daughter and on this account he suffered a particularly cruel death, being flayed alive and crucified head downwards, and left exposed to sun and flies to die. The Prince, in order to prevent the body falling into the hands of the Christians had it enclosed in a leaden coffin and thrown into the Caspian Sea. By a miracle the coffin floated and

was washed up on the Island of Lipari (though it would require a second miracle to bring it from the Caspian to the Mediterranean Sea), where it remained until 839 A.D."

Another account is as follows:—That the martyrdom occurred at Albanopolis, a city in Armenia, that about 507 A.D. the Emperor Anastasius gave the body to the City of Darus in Mesopotamia. Before the end of the sixth century it was translated to Lipari. In 809 A.D. the relics were transferred to Beneventu.

In 1000 A.D. the Emperor Otho (Ortho) III insisted on having the body of St. Bartholomew, and that of St. Paulinus was given him as the genuine body, taken to Rome from Beneventu and deposited in the church of St. Bartholomew situated on an island in the Tiber. Finally, it is maintained, that in 983 A.D. the bones of St. Bartholomew himself were taken from Beneventu to Rome, where they lie beneath the high altar in the church of St. Bartholomew in the Tiber.

The Bishop of Beneventu had presented the bones of an arm, said to be those of St. Bartholomew, to Emma, Queen of Cnut, who probably deposited them in Canterbury Cathedral. In 1120 A.D., when Rahere, Founder of St. Bartholomew's was stricken ill with malaria during his pilgrimage to Rome, it is probable that he was cared for during his illness on the island of St. Bartholomew. During his convalescence, St. Bartholomew appeared to him in a dream, and Rahere vowed that he would found a hospital on his return to London.

Apart from the bodies at Rome and Beneventu, no less than three other heads exist (at Naples, Toulouse and Riechenau). Anyone who is interested in trying to unravel the various legends should follow the advice of the author and read *A Brief Relation of the Past and Present State of the Royal and Religious Foundation of St. Bartholomew's Hospital*, by Norman Moore, M.D., published in 1895 by Adlard and Son.

Quote

"... that estimate was the cost of a film lasting thirty minutes; a ten-minute film would, of course, be shorter."

Dr. McD*n*ld

ABERNETHIAN SOCIETY

FUTURE PROGRAMME

April 21st.

MR. D. M. JACKSON, M.D., F.R.C.S.,
Director of Burns Unit, Birmingham
Accident Hospital.

"Present Trends in the Treatment of
Burns."

May 26th. IN THE GREAT HALL

SIR FREDERICK DUNLOP, M.D., F.R.S.,
Professor of Therapy and Clinical Medicine,
University of Edinburgh.

"Changing Fashions in Therapeutics."

June 16th.

DR. PHILLIP ADDISON, M.R.C.S., L.R.C.P.,
Secretary of Medical Defence Union.

"The Legal Hazards of Medical Practice."

June 23rd.

SIR ROY CAMERON, F.R.S., Director, Graham
Research Laboratory. Professor of
Morbid Anatomy, University College
Medical School.

Title to be announced later.



After the game is over ...

Ski Club, 1960

The Bart's Ski Club left Victoria on January 16th for Zermatt intact, with no last minute alarms or disasters, except that the reserved seats were occupied by faces which, though familiar, did not belong to the party. The channel crossing was delayed two hours by the late arrival of the boat, but we reached Zermatt safely and on time. The party soon collected skis from the Glacier Sports which, managed by Herr Perren, again gave us excellent equipment. Those who had skied before immediately attempted to regain old skills on the nursery slopes, mostly very unsuccessfully. Our accommodation at the Hotel Dom was as usual most comfortable and the food excellent. One of the first comments to be heard on viewing the glorious panorama from the hotel balcony was "Where is the 'Jungfrau'?" !

The weather was at first good but, unfortunately, degenerated towards the end of the first week and although there were occasional "fine periods" the weather remained rather poor, and the party returned to London several shades lighter than last year. However, this did not seriously hamper the sport, and as usual we had all grades



"Sleep that knitteth up . . ."

of skiing. Those who had never skied before attempted to familiarise themselves with the awkward instruments they were wearing. To some, skis were very frustrating, and one of the female members tried to end it all by skiing into a basement wine cellar, not to be seen again that day ! However, the majority of beginners could cope with the easier runs during the second week. Gary Renn developed his inimitable and unique ski style of last year to its logical conclusion, establishing a diurnal rhythm of sleeping by day and being socially active by night.

Those who had skied before found the runs in an excellent condition, especially above 7,500 feet, for those below, due to the warm weather, were rather slow. The Gomegrat was particularly enjoyable, as it provides all types and grades of skiing, unfortunately the bad weather at times produced blizzard conditions and the top section was occasionally closed due to the railway being blocked by drifting snow.

The accident rate this year was almost nil, the only unfortunate exception being Mr. Kingsmill-Moore, who injured his knee during the second week of the holiday. He departed for home, minus passport, but bearing our best wishes for his recovery and a large bottle of brandy for sustenance.

To those of us who visited Zermatt last year, the holiday was just as enjoyable, if not more so, despite the indifferent weather. The pleasant little cafés to which we repaired after dinner had lost none of their charm, and the consumption of Fondue and Raclettes together with prodigious quantities of Gluwein and Beer, rounded off the days perfectly.



"A falls a hawful thing . . ." !

The more expensive establishments provided their usual fare—dancing, wine and bacon and eggs to the early hours of the morning. One concrete palace was new this year, complete with an over-chlorinated, bean-shaped swimming pool, and ever vomiting Dolphin. Not all the party lived a life of unalloyed pleasure, however, and much interesting work was undertaken on several projects, including the incidence of hernias in Alpenhorn blowers !

All too soon the holiday drew to a close, and the last day dawned so fair and sunny

that it was with the utmost reluctance that the party was induced to embark, indeed, three members decided to stay on for a few more days and were rewarded with superb sunshine. The journey home was uneventful, except one of the qualified members was called in to treat an Englishman (not from Bart's) who, while under the influence, fell off a top bunk to damage an arm. We arrived only one hour late, having lost this time between Victoria and Dover, by a curious coincidence, the reverse of the outgoing trip.

CALENDAR

MARCH

- Sat. 12—On duty : Dr. E. R. Cullinan
Mr. J. P. Hosford
Mr. C. Langton Hewer
Rugger v Aldershot Services (H)
- Thur. 17—Abernethian Society :
C. H. Andrewes, F.R.S., M.D.
- Sat. 19—On duty : Medical and Surgical
Units
Mr. G. H. Ellis
Rugger v Streatham (A)
Soccer v Swiss Mercantile College
(H)
- Sat. 26—On duty : Dr. R. Bodley Scott
Mr. A. H. Hunt
Mr. F. T. Evans
Rugger v Harlequin Wanderers (H)

APRIL

- Sat. 2—On duty : Dr. A. W. Spence
Mr. C. Naunton
Morgan
- Sat. 9—On duty : Mr. R. A. Bowen
Dr. G. W. Hayward
Mr. A. W. Badenoch
Mr. R. W. Ballantine

Changes of Address

- DR. E. BUCHLER, 192 Charlton Road, S.E.7.
- MR. DEREK G. LAMBLEY, F.R.C.S., 58 York Road, Northampton. Tel. Northampton 34466. Private address : "Penshurst," Church Brampton, Northampton. Tel. Chapel Brampton 3392.

ANNOUNCEMENTS

Engagements

- BADLEY—MAYER.—The engagement is announced between Dr. Bernard W. D. Badley and Ingeborg R. Mayer.
- DU BOIS—LEWIS.—The engagement is announced between Dr. Henry Ellsworth Du Bois and Eryl Elizabeth Lewis.
- THERKILDSEN—MACDONALD.—The engagement is announced between Lance Karl Hyde Therkildsen and Ann-Mary Ewart Macdonald.
- WOOSTER—LESTER.—The engagement is announced between Dr. E. Gerald Wooster and Frances Mary Lester.

Marriage

- THOMAS—CAWDRY.—On January 5th, Dr. Gareth Thomas to Elizabeth Virginia Cawdry.

Births

- CAMERON.—On January 18th, to Veronica, wife of Dr. Donald Cameron, a son.
- LANGDON.—On January 21st, to Susanna, wife of Dr. T. Langdon, a son (Timothy Thomas).
- VICKERY.—On January 26th, to Betty and C. M. Vickery, F.R.C.S., a son (Christopher James), brother to Judy and Jane.

Deaths

- DICKINS.—On January 13th, Dr. Sidney John Oldacres Dickins, M.B.E., aged 90. Qualified 1896.
- JAMES.—On January 8th, Dr. William Morgan James, aged 89. Qualified 1900.
- WEDD.—On January 7th, Dr. Gilbert Wedd. Qualified 1896.

Philip Gosse



"Bacchus"

Dr. Philip Gosse, who died in his 81st year at his home in Cambridge, after a short illness, on October 3rd, 1959, was one of the less conventional products of our Medical College. Son of Sir Edmund Gosse, an eminent man of letters, and grandson of Philip Henry Gosse, a distinguished naturalist, he partook of the instincts of both, instincts which were not to be obscured by his entering the medical profession. His father's famous book, *Father and Son*, having been a study of conflict between parental religious bigotry and filial desire for freedom, Philip was not subjected to any comparable pressure. Nevertheless, he entered a profession for which he never felt any enthusiasm, and succeeded also in following his natural bents, zoology and letters, both illuminated in high degree by humanity and humour. Much of the story of his life is to be found related in his two books, *Memoirs of a Camp Follower*, 1934 (afterwards published under the title *A Naturalist Goes to War*) and *An Apple a Day*, 1948, a collection of autobiographical essays. His school days at Haileybury he did not enjoy, and he was superannuated before the age of sixteen. His sensible parents then allowed him to make a prolonged visit to Newfoundland, after which he spent eighteen months at an agricultural

school in Lincolnshire. He next joined an expedition to the Andes as naturalist, his "Notes on the natural history of the Aconcagua Valley" being published in 1899. At the age of eighteen he had aspired to be a keeper at the Zoo, and he now seemed to be within sight of his goal, but one day, when he was twenty-one or more, his father asked him what he intended to be. On the spur of the moment (such was his own account) he replied "a doctor." He was taken at his word and was duly admitted to Trinity College, Cambridge, where he started to read natural science and medicine. He may or may not have sat for a tripos, but certainly failed to get a degree; retribution for this omission came many years later when it was necessary to obtain somewhere, somehow, the degree of M.D. in order that he might succeed to the post of Medical Superintendent at the Radium Institute in London. Sir Frederic Treves had found out that Durham was the only university able to grant an M.D. to a candidate who had not already matriculated elsewhere. Gosse has left an entertaining account of how he passed the Durham examination in all subjects except latin. A second attempt had to be made to cross this hurdle, and it was achieved through learning by heart a crib of Caesar's *Gallic War*, Books I to III. "Certainly," he afterwards wrote, "I had a thorough knowledge of the first three books of Caesar's Commentaries, but I kept to myself that, glib as I was, I could not have told the examiners which word in the text meant which."

From Cambridge, Gosse entered the Medical School at Bart's, and duly obtained the Conjoint Board degrees in 1907, at the age of twenty-eight. His life as a medical student had not been lacking in convivial interludes. He was one of the founders of the Fountain Club, and he enjoyed meeting his old friends at the Club dinners over the next half century.

Gosse's first professional engagement was as house surgeon at the Essex County Hospital, Colchester, and he then entered general practice at Beaulieu in the New Forest. Not long before his death he sent me a coloured engraving of a picture painted by an obscure artist in 1899, entitled "The Good Samaritan." It depicts a gipsy encampment with the kind Doctor kneeling in

front of the tent and applying his stethoscope to the chest of a small ragged girl supported by her mother. The Doctor is enveloped in a frock coat and his top hat is on the ground beside him. On the back Gosse has written: "Scene depicting an event only too frequent during Dr. Gosse's practice in the New Forest prior to 1914." He never could take his academic attainments in medicine very seriously, and anecdotes of his debut in general practice were a source of unbridled merriment. In 1914 he joined the R.A.M.C. as battalion M.O., and his delightful *Memoirs of a Camp Follower* indicate that, on the whole, he had a good war. He endured without flinching the hardships and horrors of trench warfare, but lost no opportunity of indulging his interest in natural history and fishing. He wrote that the title of his memoirs might have been *A Solace of Birds*, and he concentrated his attention also on the smallest rodents to be found in France and Flanders. He devised traps and trained his batman, Bob Church, as assistant, the resulting pelts being sent to the Natural History Museum, South Kensington. By the time the Battle of the Somme had been fought Gosse's interest in rodents had somehow become common knowledge, and one day, while enjoying an idle time in a rest area, he was astounded to receive a visit from a staff officer who announced that he had been appointed Rat Officer to the Second Army, and was to report forthwith to the Director of Medical Services at Hazebrouck. He consulted his batman as to what he should do. Bob replied: "Don't you waste no time, sir, thinking; we've got a cushy job," and started packing at once. Rat infestation was a serious problem in the trenches, and Gosse entered with enthusiasm into his new duties, though life as G.O.C. Rats was not easy at first. In time he wore down official apathy and even ridicule, and in the end made a very important contribution to army hygiene by the measures he introduced to control the pest. His lectures on rats to the troops became a popular feature once it was realised how well he could combine instruction with entertainment, and he made an immense success of Bob's "cushy job." Towards the end of 1917 Gosse's reputation earned him his full reward in the form of a transfer to a School of Sanitation in the Far East. He had always longed for such an opportunity, and his new duties in India gave him almost

unlimited chances for observation of birds and mammals, more than one of his discoveries among these proving to be new to science. After seventeen months in India he reached England again at the end of an extraordinary journey in which only two of his twenty-four large boxes of specimens were lost—and even those were delivered a few days later.

The war over, Gosse did not return to general practice, but worked at first for the Ministry of Pensions, and later joined the staff at the Radium Institute. He had no particular qualifications for this work, but he could learn, and his method of advance to the post of Medical Superintendent with an M.D. Durham has already been related. His sole contribution to clinical literature was a paper on "The screened radon seed in the treatment of malignant disease," published in the *Lancet* in 1928. He retired from the Radium Institute in 1930 and could then give more time to the pursuit of the hobbies he had already been cultivating. For many years he had been interested in islands and in pirates and their history. *The Pirates' Who's Who* had appeared in 1924, *The Pirates' Library* in 1926, and a *Bibliography of the Works of Capt. Charles Johnson* in 1927. Sir John Hawkins followed in 1930 and *The History of Piracy*, Gosse's most considerable work, in 1932. In 1938 he published an account of the Island of St. Helena, having lived there for some time while gathering his material. For some years after his retirement, he made his home at Steyning in Sussex. During the Second World War he returned to medical work as examiner of recruits for the army, living in Cambridge and being admitted as Research Student and Fellow Commoner of Trinity College.

It is evident from his writings that Gosse had a special feeling for cats, and a long succession of these animals had played important parts in his life. At his father's house there had been Atossa, "a proud aristocrat and a professional beauty," given by Walter Pater, painted by Sir Alma Tameda, and modelled by Hamo Thornycroft. Atossa was followed by a plebeian Mother of Millions, and Welland Potbelly Allsop. Next came a "feline Pope Joan" (given by Sir Harry Wilson) called Joseph Patch Wilson, which unexpectedly gave birth to a single kitten. Then, in succession, came Charles Nathaniel, Mopseyman, Caruso and, finally, James Buchanan. It was natural,

therefore, that the trenches in France provided Gosse with a remarkable representative of the race, called Landlady, who would wander unconcernedly on to the parapet of the fire-trench and gaze at the enemy fifty yards away. She would wash carefully in full view of the contending armies, and then return to sleep in the middle of Gosse's bunk, forcing him to occupy one edge. Many other cats had their place in Gosse's life, notably Ninny, in spite of his name a redoubtable hunter, who was the hero of a terrible story. Gosse had bought a suburban house, the late owner of which, a bird lover, had erected a cat-proof wire netting fence twenty feet high round the entire garden. Ninny emerged from his travelling basket, stretched himself, and took one look at the lawn of the bird sanctuary. . . . It was a cat's paradise.

A second Ninian Gosse was probably the last of the series. Soon after the Second World War Philip was living in a Cambridgeshire village, and conceived the wicked idea of enrolling Ninian in the Civil Defence Force. He enjoyed filling in the first form, and the question "How occupied during the war?" answered: "Firewatching." Embarrassments followed, as when the local officer asked the size of Ninian's boots, and when a summons came to attend a parade Philip had to plead his indisposition. A few days later the officer called at the house with friendly enquiries, and Philip was forced to tell him with a suitably lowered voice that poor Ninian had passed away. The young man was even more embarrassed than the bereaved parent at having intruded and extricated himself with murmured sympathy and blushes.

Gosse was three times married, and had a daughter by each of his first two marriages. His third wife was Anna Gordon Keown, the writer and poetess, who died in 1957. So, in his old age, Philip became a lonely man, still young in spirit and longing for some active occupation—he would, he said, be glad to take a job, even as a barman, if anyone would have him—though handicapped by growing deafness and a tiresome skin complaint, which was treated for some time in Bart's. He was very handsome as a young man of a sensitive and affectionate nature. There was a tinge of the occasional irascibility belonging to his reddish hair and florid complexion, but his tempers were shortlived and laughter was the continual

accompaniment of converse with his friends. In the last year but one of his life he undertook a journey round the world in order to visit some relations in Australia. A party was arranged for him on his return in 1958, at which he was presented with a cake representing the globe round which he had travelled, and was crowned with bay leaves. The last photograph of him was taken on this occasion, and leaves an impression of him such as he liked. He wrote on the back of the print which he sent to me: *Bacchus and the Tempter*.

ST. DAMIAN.

Gosse made a number of contributions to the pages of this *Journal*. A list of these has been compiled by the College Librarian, Mr. John Thornton, and is appended. *A Bibliographical Check-list* of all his writings up to 1952 was published at Cambridge by Mr. Raymond Lister.

Dr. Philip Gosse's Contributions to St. Bartholomew's Hospital 'Journal'

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 —. Ancient "Surgery." 26, 1918-19, p. 6
 —. A Chinese Mandarin (Corres.). 45, 1937-38, pp. 118-9.
 —. Dental Misadventures. 40, 1932-33, pp. 89-90.
 —. Eric Gill's Rahere (Corres.). 45, 1937-38, p. 164.
 —. Fees. 40, 1932-33, pp. 107-9.
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 —. None so Blind. 42, 1934-35, pp. 90-91.
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 —. Questions and Answers. 40, 1932-33, pp. 145-8.
 —. Spats. 41, 1933-34, pp. 95-7.
 —. The Village Policeman. 42, 1934-35, pp. 123-4.
 —. The Woodpecker. 40, 1932-33, pp. 191-3.

DIRTY LINEN AT THE FOUNTAIN CLUB

The Bard would explain that this public detergent operation is intended only in a Pickwickian sense

CLERK AND BURSAR

"Have you paid your year's Subscription?" said the Bursar to the Clerk.
 "No, in point of fact I haven't; I regard it as a perk
 Due to me for undertaking so much honorary work.

But it's up to you, good Bursar: you're the man who holds the purse:
 As it seems that God hath joined us both for better and for worse,
 Why not make a joint assessment, and then make us both disburse?"

No, it ends in holy deadlock—most unfortunate of course,
 But until the Clerk and Bursar can agree to a divorce
 Portions of the Fountain's income are deducted at the source!

BARD AND AUDITOR.

NEW WINE TASTERS

Good wine, they say, requires no bush
 To advertise its virtue,
 Nor yet a filter to remove
 Such matter as might hurt you.

Yet ancient monarchs always kept
 Some slave to taste their wines,
 In order to protect themselves
 From poisoners' designs.

So our Committee every year
 Appoints two idle wasters,
 And dignifies them with the style
 Of Fountain Club Wine Tasters.

But latterly it seems to me
 For reasons quite obscure
 This honourable post has now
 Become a sinecure.

These so-called Tasters shirk their job,
 While we are left to drink
 A wine not only looking like
 But tasting like red ink.

Either the taste buds on their tongues
 Must be extremely weak,
 Or else such tasting as they do
 Is done with tongue in cheek.

"Blind mouths!" as Milton once remarked
 Of slackers in his time—
 "Dumb Palates" we perhaps might add
 To fit this modern crime.

Who are these gustatory goons?
 I search our latest log,
 And there I find inscribed the names
 Of *Hancock*, and of *Hogg*.

If we must use a hogshead for
 This dubious technique
 At least let's turn the handcock off,
 And minimise the leak!

The Fountain Club is slow to wrath,
 And stirring up of mud:
 How much untasted wine must flow
 Before we call for blood?

Such angry tempests can blow up
 Quite quickly in a calm sea—
 A well-known duke once disappeared,
 Drowned in a butt of Malmsey.

Let *Hogg* and *Hancock* contemplate
 That huge historic tub:
 It might provide a precedent
 To suit the Fountain Club.

R.B.P.

BARD AND BIBBER.

Parasitic Fungi

by G. A. GRESHAM, M.A., M.D. (CANTAB.)

University Lecturer in Pathology, Cambridge

Fungal diseases of man are becoming increasingly important. It is true that some mycotic infections are disappearing, an example being scalp ringworm due to the genus *microsporum*. However, visceral mycoses are becoming more common probably due to the ubiquitous use of antibiotics.

This brief review is intended to provide a simple classification of parasitic fungi and to indicate some of the recent advances in the field of mycotic disease. Fungi are plants without stem or root; they do not contain chlorophyll and hence must live saprophytically on dead organic matter. Indeed the main role of most fungi is concerned with the disposal of decaying organic material; only rarely are such organisms parasitic in man.

The toadstools of our countryside are specialised spore bearing structures derived from a dense subterranean network (mycelium) of threads (hyphae). Many parasitic fungi are composed of hyphae which are often divided into segments by septa; they are imperfect fungi because they reproduce vegetatively. However, recent work on the *Keratinomyces ajelloi*, a soil saprophyte [which is probably an ancestor of human parasitic fungi, suggests that such a sexual phase may exist particularly in the genus trichophyton.

Vegetative reproduction is achieved by means of spores (conidia); they may be born singly, in groups or within specialised structures and serve as a means of identifying the fungus in culture.

A simple classification of fungi which produce disease in man is as follows:

- (i) Filamentous
- (ii) Yeasts
- (iii) Dimorphic fungi.

The filamentous fungi are composed of hyphae and comprise those which produce infection of skin, hair and nails and are called dermatophytes or keratinophilic fungi. Another filamentous organism of importance is the *Aspergillus*; a common aerial contaminant which may attack the human lung.

Yeasts are unicellular fungi which repro-

duce by budding. They are exemplified by the genus *candida* which is the cause of "thrush" and the genus *cryptococcus* a common soil saprophyte in this country. Dimorphic fungi are rare in the British Isles: in the tissues they are yeast-like but are filamentous in culture at 22°C.; they produce diseases such as Histoplasmosis and Blastomycosis.

Three genera of dermatophytes occur in the group of filamentous fungi. They attack keratin of the skin, hair and nails; the precise mechanism of keratin invasion is still under investigation. The first of these genera, *microsporum*, produces scalp ringworm in children. Infections are becoming more rare and are limited by the onset of puberty; at this time the skin produces fungicidal fatty acids. *Microsporum canis* is acquired from cats and is common in New Zealand! Attempts have been made to treat infection with the new agent griseofulvin obtained from a species of *pencillium*. The mode of action of this substance is obscure. It may act on the keratin substrate rendering it impermeable to the penetrating hyphae. More likely it attacks the fungus distorting hyphal growth and preventing invasion of keratin; there is experimental evidence to support this latter view.

Griseofulvin has been used in infections caused by the second genus in the filamentous group namely trichophyton. There are many species; some cause tinea pedis, others produce infections of nails and hair. *Trichophyton rubrum* is a relatively recent arrival in this country. Infections are more common since the last war; the organism was probably imported from its endemic areas in the Far East. *T. rubrum* produces an intractable dyskeratosis of nails and in such cases griseofulvin has proved valuable.

T. rubrum is recognised, in culture, by the production of a ruby red pigment. Many fungal pigments are quinones and some are antagonistic to the growth of other fungi. The characteristic fluorescent pigments of *Microsporum* sp. are pteridines. Work proceeds on the purification and identification of fungal

pigments and may lead to the production of further antibiotic substances from a group of organisms which has already yielded many.

Epidermophyton floccosum is the only species of the third genus in the filamentous group of fungi. It's curious localisation to the groins is difficult to explain. More recently foot infections, due to this organism, are being recognised.

The genus *aspergillus* might be grouped with the filamentous fungi. There are many species of which *A. fumigatus* is important in human and animal disease. *Aspergilli* are common in the air and infect by inhalation. In young birds and sometimes in lambs and piglets *A. fumigatus* produces a severe necrotising pneumonia. The human lung is attacked only if it has been previously damaged by tuberculosis or bronchiectasis. The fungus proliferates and fills cavities producing a mass known as a mycetoma. It also produces a haemolytic toxin which may lead to progressive unexplained deterioration in a patient whose lung disease appears to be well controlled. Another form of *aspergillus* infection is a diffuse superficial colonisation of bronchial mucosa leading to attacks of bronchospasm together with expectoration of brown plugs composed largely of fungal mycelium.

Few fungi produce toxins; probably the best known is that of the "death cap", *Amanita phalloides*, a common inhabitant of oak woods in the autumn. Of those fungi which attack man, the *aspergillus* and *Candida albicans* alone produce toxins. *Candida* is a saprophytic yeast commonly found on mucosal

surfaces and on the skin. Debilitation due to disease or prior treatment with tetracyclines predisposes man to invasion by this organism. The species most often implicated is *C. albicans* and infections vary from superficial areas of oral ulceration, which may spread to involve the entire gut, to bronchopulmonary or renal lesions which may prove fatal. Occasional examples of endocarditis due to *Candida* species have been reported.

The *Cryptococcus neoformans* is another yeast commonly found in soil. It may produce areas of necrosis in lung tissue, space occupying lesions in the brain and granulomatous lesions in the liver and spleen. Interest in the latter lesions is caused by the close resemblance which they have to those of Hodgkin's disease. This fact, coupled with the paucity of organisms in such lesions raises the old hypothesis that Hodgkins disease is an infective granuloma.

Little need be said about the dimorphic fungi though mycologists are keenly interested in the factors which influence this profound variation in morphology. The infinite variability of the histological lesions produced by these organisms has served to maintain a constant awareness, in the mind of the diagnostic histologist, that many hitherto unexplained tissue reactions may have a fungus aetiology.

Medical mycology is a rapidly expanding field of knowledge and it is evident that the medical student can ill afford to neglect it if only because it indicates the dangers of the miscalculated use of potent therapeutic substances.

The Natural Barriers to Fungal Infection

by A. I. SCOTT, M.D. (TORONTO)

Department of Dermatology, St. Bartholomew's Hospital

It is becoming generally accepted now that normal intact skin offers a strong barrier against fungal invasion, just as it possesses strong bacteriostatic properties which prevent the constant influx of surface bacteria. Recent work has demonstrated that skin scrapings may often contain hyphae and spores capable of reproducing fungal colonies on culture, although the subject may have no clinical evidence of infection. Some investigators have been emboldened to apply cul-

ture specimens to the skin of volunteers—the majority of "takes" occurred only in areas in which the skin had been devitalized by previous trauma or maceration. Why?

The Terrain of the Host

Dermatophytes appear to be obligate parasites of keratinized material, stratum corneum, hair, nails. They do not enter living cells. Keratin itself is a protein constructed

of amino acids arranged in complex cross-linkages to form an extremely coherent molecule rather like a lattice. Its degree of hardness is governed directly by the degree of cross linking between its units. In the interstices of the lattice are held other molecules—chiefly water from insensible perspiration (tissue fluid lost through evaporation), fatty acids and cholesterol from sebum and cellular breakdown, glucose and amino acids, also cellular remnants. Soft keratin, such as stratum corneum, contains a relatively large volume of these absorbed materials, while the hard keratin of nail or hair contains only minimal amounts.

The formation of keratin, although probably begun in the basal cells of the epidermis, can only be well traced from the stratum granulosum. Here there is a broad band of cells showing condensation of keratohyalin granules, increased water content, precipitation of cytoplasm, and the beginnings of nuclear degeneration—all the hallmarks of keratin development. As the process continues toward the surface, cell and structural outline become less definite until nothing remains but a relatively homogenous layer of soft keratin which presents an uninterrupted but inert surface of great importance as a barrier. Under X-ray diffraction studies and electron microscopy this protein appears like a compressed lattice with its interstitial content of material, for the most part the remnants of pre-existing cells. It is interesting that the visible band denoting the earliest form of keratin is also the site of intense enzymatic activity, and appears to be the control for absorption of any topical materials. If its integrity is disturbed the way is open to absorption of many noxious compounds as well as to the loss of the contents of the internal milieu—especially plasma. The soft and hard keratins are alike in all these features, but in the latter type, found in hair and nails the formation of keratin has continued further with the production of a sturdier protein still. Keratin is an extremely tough substance, very resistant to hydrolytic destruction—only hot, strong acids or alkalis may accomplish this in vitro. Some keratolytic enzymes exist, but they are not common, the clothes moth has one. In addition to the keratin content of water, glucose, amino acids, enzymes resulting from cell breakdown, there also percolates through the keratin acid sweat, the so-called insensible perspiration through which the body loses

water by evaporation. The outer surface of keratin, in particular stratum corneum and hair, is covered by a film of sebum, a mixture of odd and even numbered fatty acids plus cholesterol. This is produced by sebaceous glands whose orifices open into the bases of hair follicles whence it spills out onto the surface to be diluted by mixture with sweat. Adult sebum contains a mixture of many fatty acids, of which the odd-numbered ones predominate. It has been demonstrated that these fatty acids, particularly those of the series C7 to C13 possess fungicidal properties. In contrast the sebum of childhood lacks these fatty acids.

The Needs of the Fungus

Of all the superficial dermatophytes, only one—*Microsporon gypseum*—has been shown to possess a keratinase capable of breaking down keratin. It would seem obvious then that unless a primary hydrolysis of keratin has already occurred from some other reason the fungus cannot derive its main nutrition from this source. It must survive by utilizing the contents of the interstices. Its own proteolytic enzymes are able to destroy sidechains of the stable keratin, but this will not disrupt the integral molecule. Besides its full complement of proteases, the fungus possesses dehydrogenases, phosphatases and other enzymes with which it can use available amino acids, water and glucose to produce energy for metabolism and reproduction, as well as growth. Its nutritive hyphae grow along interstices to reach deeper sources of food, but they are limited as soon as they reach the layers of living cells—there they cannot compete. The fungi flourish best in an alkaline medium. This is difficult to find in the normally acid body surface, especially near living cells, but as soon as disease intervenes, or trauma, in the skin the normal pH becomes more alkaline.

The Barriers Between Host and Invader

To review briefly then the barriers presented by the host: (1) the most important one is the integrity of the keratin surface of the epidermis and its appendages, nail and hair. By that is meant the unbroken layer of protein chains tightly linked with a minimal interstitial content of water. (2) the surface acid protective mantle, a mixture of acid sweat and adult sebum. (3) the integrity of

the mid-epidermal band of living cells undergoing active enzymatic change. A fourth, deeper, means of protection which has recently been described may be mentioned briefly here. Lorincz has demonstrated the presence in all tissue fluids of a fungistat of unknown protein structure, which inhibits the spread of fungi in regions to which, once gained, it would otherwise have unlimited access—deeper epidermis, dermis, and the circulation.

Tipping the Balance in Favour of the Fungus

Any disruption of keratin continuity and stability will provide easy access for fungal invaders. Abrasions, hangnails, cuts, or any pre-existent skin disorder such as eczema are obvious means. A slightly more subtle mechanism is the separation of the normally tight protein linkages by the increased water content of clinical maceration. This is the type of skin seen so often in the damp hands of the busy housewife, the perspiring feet



Tinea pedis showing the macerated interdigital cleft which provides an ideal breeding ground for the fungus

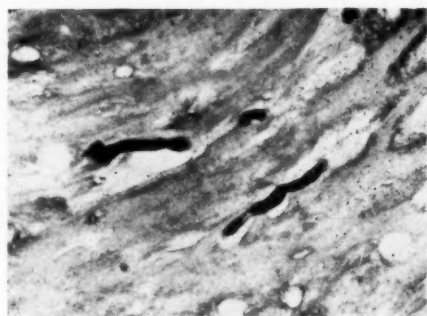
of the athlete, or the hyperhydrotic hands of the adolescent. In all these instances the keratin has imbibed too much water to permit normal maintenance. In fact the layers often separate spontaneously, giving the splitting which one sees clinically, in interdigital sites for instance.

The natural acid mantle of skin or hair surface can also be disturbed by hyperhydrosis, in which the alkaline sweat of the apocrine glands pours onto the surface producing a suitable pH for fungus survival sufficiently lasting to permit time for multiplication. It has already been mentioned that childhood sebum lacks the odd-numbered fatty acids which have fungicidal properties. This is the reason behind the prevalence of microsporon infections in childhood, and their spontaneous cure during adolescence, coincident with the production of adult sebum. We are unable to measure with sufficient accuracy the qualitative and quantitative variations in the fatty acid content of sebum to relate any alterations in that substance to fungal infection in the adult. One point of interest, *Trichophyton interdigitale* (*Mentagrophytes*) is able to adapt itself to survival near sebaceous glands. This is probably one reason why animal ringworm and tinea barbea are seen in the adult.

Once within the keratin layer, all the amino acids which exist there can implement the growth of the fungus. The one amino acid which will inhibit the fungus—hydroxyproline—is absent from keratin, although present in all the other formed proteins such as collagen, which are associated with skin. Many mycologists point to this feature as governing the remarkable tendency of the superficial dermatophytes to limit their activities to the superficial epidermis. The one fungus of this group which can grow in the presence of hydroxyproline is *T. rubrum*, the organism which is capable of spread through the dermis as well. Any inflammatory reaction which is present in the epidermis will increase the quantities of amino acids, glucose, etc., available for fungal nutrition as well as destroy the integrity of the mid-epidermal barrier. Parakeratosis, keratinization diverted from its usual form, may occur normally in interdigital clefts. This may be a contributing factor to the frequency of fungal infections between the toes.

Insufficient knowledge prevents one from assessing the effect of variations in the normal tissue fluid fungistat. One can only

observe the development of antigen-antibody reactions once the organism has gained the dermis. These allergic phenomena, once initiated, can be transferred to almost all parts of the body surface, producing the so-called dermatophytids, or non-specific allergic reactions to localized fungal infections.



Photomicrograph of stratum corneum showing fungal hyphae penetrating the acellular membrane

Two specialized sites for infection call for individual comment. The nail is not likely to acquire its infection from disruption of visible nail, but through entrance into the nail bed via the cuticle or the undersurface of the nail, which has been affected by the same disorders described above for the surface epidermis. The other site—the hair follicle—is a structure whose walls are a continuation of the surface epidermis to a point one third of the distance approximately from the base. Here the epidermal cells become specialized organs capable of producing the hair cuticle and matrix. At this point there is also a narrowing of the lumen, with proximal accumulation of sebum, sweat, and cell detritus, and finally, a natural disruption of the mid-epidermal barrier due to a sudden disintegration of the outer cell layers to form the external hair sheath. It would appear that the follicle can offer an ideal breeding ground for fungus as the only natural barrier capable of exerting its full potential is the sebum. These factors are involved in the frequency of follicular infection in the child, and its rarer incidence in the adult. It is however not unknown in the latter as cases of animal ringworm and tinea barbae testify. Furthermore, if the fungus does penetrate the follicle successfully it readily spreads to the surrounding dermis to form the granulomata

seen occasionally with *T. rubrum* and *T. mentagrophytes*.

The Balance Tipped in Favour of the Host

Obviously it is in the interests of the host that the normal state should be maintained as much as possible throughout the epidermis. The natural barriers, are his best means of protection. Prophylaxis includes keeping the skin clean and dry. Cuts abrasions, etc. should be treated promptly and the area protected from danger of chance infections. Conditions of hyperhydrosis should be controlled and dermatoses treated promptly and adequately. It is amazing, in view of the relatively poor care most people bestow upon their skin, that fungal infections are not much more prevalent even than they are. All these various precautions are merely common sense, but they are quite adequate in the majority of instances of simple infection to minimize involvement or even stem the onset. They are not sufficient in the more virulent type of infection, notably in children with microsporon infections, and in adults with deep follicular involvement, nor will they halt the spread of *Trichophyton rubrum* disorders. What else can one do?

Up until two years ago the treatment has been limited to the use of methods designed to remove the keratin in which the fungus has grown—namely by keratolotics (salicylic acid), avulsion of nails, or X-ray epilation of hair. Some attempts have been made to utilize the fungicidal properties of various fatty acids, notably benzoic and undecenoic acids. The more drastic methods have often succeeded by their very strength, but the therapeutic situation was not a happy one. Recently with the advent of griseofulvin, a derivative of *Penicillium*, we have a fungistat which attacks the nutritive fungal hyphae directly in a way as yet unknown. Despite our ignorance, the clinical results appear to be very rewarding, provided this systematic medication is given in a dosage sufficient to achieve an adequate concentration in the infected area, and is continued long enough to permit natural loss of the infected keratin with replacement by non-involved protein.

Several interesting questions loom—why do fungi prefer to domicile in keratin, do the sulphhydryl groups so important as catalysts in normal epidermis also serve the fungus? It is odd that superficial fungi do not grow in mucous membrane. What specifically halts

their infiltration near living cells. In what way do the fatty acids alter the organism to inhibit growth? Is the tissue fungistat an entity, or merely the non-specific proteases—we know that in the deep trichophyton in-

fection known as kerion, the body produces sufficient inflammatory reaction to sterilize the abscess eventually. Perhaps if we can elucidate the action of griseofulvin and related chemicals we may come closer to some of the answers.

Sens Unique

by M. CHARLES

My first six months here, I often felt faint. Medicine was so seemy, too realist; it was too wrong to see people broken, sickened, decaying. Not physically faint so much as mentally faint; the spirit appalled by the sudden arrival amongst the sick. Pitying, it was hard to touch. Casting about for alternatives, here I was in a one way street. London life depressed, after cloistered courts and open skies, but only for that first winter.

Time passed, and I changed. Bart's became the new four walls, and I forgot to notice sensations and began to wink encouragement at the patients—(What else are students for?). The mysteries of medicine remained hidden in a pearly mist which thinned here and there, thanks to sweaty moments on ward rounds. The month away doing Midder was refreshing; surely the country is the place to be in hospital? London, first hated, then explored, by then was felt and lived with affection and respect, but being away, seemed grimy and groaning beneath its air. Cities. Man was made to be pastoral; only the black sheep went to the cities and made them blacker yet. H. G. Wells, lapped up at prep. school, knew about cities—his people burdened with their machinery, enduring cacophony without direction. Recall the market? Meat-stained porters loafing on the pavements, almost too apathetic to jeer. The pools, the telly, the Mirror—the most potent forces in their lives. Welfare State and Union Jack. Hey ho. And what about us?

Extraordinary that while still a student one thought little about being a doctor. Life in College Hall was splendid, I failed to understand those who derided it. Besides being convenient, the gentle simmering of characters was absorbing. Student life became better and better, even the aura of finals produced an exhilarating hypomania. (how he passed I cannot tell), then suddenly,

battle done, breathless, awesome, a house job.

Alas, the sweet irresponsibility of the student days, the weekends, the friends, now blown about England, startled, responsible, ignorant. It was a profound shock. One rallied. It was extraordinary how quickly the new life became routine. The crises, the hours, the never-ending stream of patients. Two new ideals emerged. Firstly, medicine was fascinating—"if only I'd read about that"—the books became allies to be seized when the pearly mists still obscured a now hardening image. One must know what one was doing . . . Secondly, the people. Families, individuals, types; character after character thrust before you, asking this, asking that; never doubting your ability to answer. Charity, charity, and sound common sense; obviously one could not be a doctor without being also a diplomat. What an advantage a psychiatric training would be.

Training, teaching! Think of the three years of attendance—sonorous exposition—Today, gentlemen . . . Keen types agog, the rest, the most, sitting and letting it wash round their ears, (where, after much time, it fell together here and there). Would it not be better to cram, to bludgeon? Dogmatic charts, much repeated—remember your goitres? Remember a series of lectures in which a drug was identified during the first two minutes and thereafter referred to as "the substance"? (If you were late, you were cornered, because the lecture seemed both interesting and vital, but your friends were scribbling hell for leather and had time neither for you nor your signature!)

I may be wrong about the dogma. Florence Nightingale, influenced by the army no doubt, brings up her daughters with discipline, but little encouragement to use the nut. "But nurse, that drip is in an antecubital

vein, why splint the wrist?" "Oh! we always put this splint on for drips!" Also, there must have been a surplus of eligible young ladies in Florence's day; perhaps today's dearth will see matron's writing at last for motion study experts. If the workers don't want automation, I'm sure that the nurses won't be so averse.

No doubt we'd all like to change the world in retrospect, but I think that housemen hardly have time to analyse theirs until they have finished their round of jobs. Poor burdened houseman with no court of appeal—his medical lot shouldered with fortitude, and his mess life at the mercy of caterers and hospital secretaries. The greatest injustice of the Health Service must surely be the power misused by these men; five messes I have known, and only one where they cared. Not that bitterness helps, there are too many opportunities on the precarious ladder—we should have been warned at birth.

"Oh, the great days in the distance en-

chanted" goes a school song, "How will they seem . . .?" Great; no doubt of it. Bart's the great oak tree, ageless and gnarled. Strange how time sifts memories into a bright kaleidoscope. Crystal clear moments—people, friends—fixed as stones set in dull silver, but reflecting a fiery image. Water slooshing round College Hall, old X asleep again on a ward round, surgeons dramatic, physicians lordly. Majestic chorales at Bart's the Great, the square at night, cool and enduring; upstairs the circle round the box in R.S.Q.—"deep down clean" they all shout, in time to the music. The tongues of the humourists flicking their quips across the oval table, leavening the day's events. Remember them in ward shows, grotesque and fantastical, houseman's escape. Remember them gay at Hill End, grey eyed in town, duty weekendened, off on a spree. May the sons of Rahere continue unabashed, some grinning, some groaning, but always with that subtle mockery which is the speciality of the house.

They were right, the Art is Long.

Medical Memoranda from the History of the Royal Manx Fencibles 1779-1811

by A. M. WARD

The Royal Manx Fencibles were raised in four Corps during the period 1779-1811 for the home defence of the island. Although no overseas service was contemplated when they were formed, considerable attention was paid to the physical fitness and the health of the troops. Medical examinations for potential recruits are no recent innovation, but as each recruit meant three guineas Levy Money for the recruiting officer, no doubt some agreement was reached with the less scrupulous regimental surgeons. Even the form of attestation for the First Corps paid particular attention to physical fitness.

"I,, do make oath that I am a, and to the best of my knowledge and belief was born in the Parish of in the Isle of Man, and that I have no rupture, nor ever troubled with fits, that I am in no ways disabled by lameness or otherwise, but have the perfect use of my limbs, and that I have voluntarily enlisted

myself to serve His Majesty King George the Third in the Royal Manx Fencibles, commanded by His Grace the Duke of Atholl, to serve in the Isle of Man and not to be drafted into any other Regiment, that I am no apprentice, nor belonging to the Militia or any other Regiment or to His Majesty's Navy."

The earliest Corps, raised in 1779 and disbanded in 1783, contains little of medical interest, save for the fact that a Surgeon, Patrick Scott, was commissioned.

Surgeon Scott was again commissioned in the First Corps of the Royal Manx Fencibles, raised in 1793 and disbanded in 1802. In the early days of his appointment he seems seldom to have been on duty, as on the 15th July, 1793, the Fencibles were informed that all those that had need of the doctor should apply (until the hospital was fitted up) at Mr. LaMothe's between the hours of 10 and 12 o'clock, as they could not expect the

doctor to be always in waiting. Sick parades were evidently much the same then as now, for when all troops were assembled for muster on March 23rd, 1796, at Castletown they were told that "... no man is to be left at the outposts except such as are sick, and for these the surgeon must certify." Again, on June 15th, 1796, a Field Day having been organised, "... no man was to be absent unless sick on examination of the surgeon. The Officers commanding Companies were to take care to see that the orders for dealing with the sick and pretending sick were strictly complied with."

One of the main troubles of the medical officers was sanitation. Sanitary conditions in the barracks were far from good, and there was considerable overcrowding. It is to be wondered that there was not a larger mortality among the men than actually occurred. On July 1st, 1794, the officers of the corps were again reprimanded for not conducting their barrack tours as was evident from the almost putrid state of the barracks in Castletown. A remedy was immediately put into effect, as on the same day the following order was issued. "As from the confined situation of the barracks at Castle Rushen, and the warmth of the weather, there is reason to apprehend a sickness among the troops unless the numbers in the said barracks be lessened, Lt. McHarg of Lt. General Douglas's Regiment with one sergeant will march tomorrow morning at 6 o'clock to Douglas with so many privates of the said Corps as will reduce the numbers remaining in the barracks to TWO men per bed."

In October, 1798, an Assistant Surgeon was appointed, John Nelson Scott, having been transferred from the Second Corps. Surgeon Patrick Scott went sick in March, 1801, and did not rejoin the Corps again. Work for the Surgeons must have become very slack in the later years, for his assistant went on leave for a month before the Corps was disbanded.

Although Surgeon John Nelson Scott had been appointed to the Second Corps in April, 1795, he did not join until December, as the officer strength of the Corps in the autumn only mentions a Surgeon's Mate, Ensign John LaMothe. Before the arrival of Scott, the strengths of the First and Second Corps, and of the Royal Dublin Regiment, all in the island, were each approximately 275, each regiment having one surgeon or surgeon's

mate. In December, however, when Scott joined the Corps, its nominal strength rose to 617, thus the relationship of one surgeon or assistant to every 250-300 men appears to have been maintained.

Both Scott and LaMothe seem to have been drawing double pay for their services, as they were double commissioned, as Lieutenant and Ensign respectively. This does not seem so unreasonable when one finds that a surgeon was paid four shillings per day, and a surgeon's mate three shillings and sixpence. At least two other officers in the Corps were similarly double commissioned, the Quartermaster and the Adjutant. Just before Scott left to join the First Corps he was joined by another surgeon, Surgeon Lt. Edward Kingsley, again double commissioned.

In 1802 one finds that no allowance had been made for discharging men from the Corps for being over a certain age, but provision had been made for those men that, from bodily infirmities, were totally unfit for further service.

The formation of the Third Corps, soon after the disbanding of the First and Second Corps, sees Surgeon Scott again in uniform. But this time with a new assistant, Assistant Surgeon Frederick LaMothe, the doctor referred to in the order of July, 1793.

When the new Commanding Officer, Major Stewart, took command of the Corps in 1806, he found the state of the troops to be so bad as to prompt a letter from the Adjutant-General. Conjunctivitis was prevalent among the forces generally, and Stewart ordered that redoubled attention should be given to the cleanliness of quarters and of the men of the Corps, and he required the medical officer to make frequent inspections of the several quarters. He further urged the necessity of each individual soldier paying the strictest attention to the cleanliness of his bedding and quarters, since the disease, if not taken in time, might totally deprive a man of his sight, and in such cases he would be discharged and unable to support himself and his family.

In January, 1808, Stewart again drew his officers' attention to medical matters, and directed attention to "the present alarming state of Douglas from the prevalence of a serious complaint, which, without immediate medical attention, has in every instance proved fatal," and he ordered the officers to be most attentive in their duty of looking

after the men, and upon the slightest appearance of sickness to take them immediately to the surgeon. The nature of the complaint was not specified in any report, and notwithstanding his observations and instructions, Major Stewart moved more troops into Douglas from the country in the next few days.

Under the date of April 25th, 1808, there appears a memorandum from H.R.H. the Commander-in-Chief, that the Corps should be examined by the Surgeon "with a view to such men as have no appearance of having had the Small or Cow pock being inoculated

with the vaccine matter." This must be one of the earliest reports of Vaccination in the Armed Forces of the Crown. At least the army cannot be said to have been slow in the adoption of this means of combating a disease that must have been a scourge in the overcrowded barrack rooms that seem to have been the order of the day.

On this note of medical foresight the history of the Corps must end. The duties of the surgeons were restricted to those of any garrison medical officer of the period during the whole of the thirty-two years of rather interrupted existence that the Corps enjoyed.

Letters to the Editor

SPORTS CLUB TOURS

To the Editor.

Dear Sir,

It was interesting to read in the February *Journal* confirmation from the pens of the gentlemen of the Soccer Club that their tour to Cambridge had cost only £24. Interesting, because this now becomes the only accurate fact in the letter from the Spheroids in the December *Journal*.

In defending the Rugby Club from the accusations of the Spheroids, I wish only to point out their inaccuracies and not to answer their petty and spiteful jibes such as "we doubt if the Rugger Club are our best ambassadors" and "drank less than usual and behaved more quietly than usual in order to try and leave a more favourable impression in their wake than they have managed to do in recent years." Such comments by one group of Bart's students about their fellows are most unpleasant, from anonymous pens they are despicable.

To take the facts in order, then:—

1. "The Rugger Club spent something in the region of £130 on their recent tour of the West Country." In fact, the Club was allotted £130 by the Students' Union to spend on their tour. They actually spent under £105.

2. "The team put up with a 10s. 6d. Bed and Breakfast." This figure is pure fantasy.

3. "The high cost of transporting twenty-two men to the West Country." There were not twenty-two men, but nineteen. The transportation costs work out at 12s. per day per man—reasonable enough for an extended tour.

4. "Why do the team go to the West Country?" The Rugby Club attempts to build up a team in the early part of the season. They are the only hospital club, for instance, which has mid-week training at Chislehurst (for which the participants have to pay in full). They also organise evening training in the Gym. The November tour is an excellent way of getting the First XV fit and playing as a team. The Rugby XV is the only hospital team which plays against first-class opposition. (The Cricket Club meet village teams on their tour, and the Soccer Club play, and regularly lose to, the weaker Cam-

bridge Colleges on theirs.) The only Rugby Clubs able to provide suitable opposition are in the Midlands, South Wales and the West Country. In the Midlands there would be no gates for mid-week games, the same applies in South Wales, where suitable fixtures cannot be obtained for at least five years ahead. In the West Country, inconveniently far away though it is, the clubs played are the right opposition, close together, and the gates help to cut down the expenses.

In conclusion, I should like to express regret that the Editor should print such a derogatory and inaccurate letter about the biggest sporting club in the Hospital, which also attains the highest standard without making some effort to check the facts with the Club, so that, at least, a reply could have been printed contiguously, and not many months later.

Yours faithfully,
J. D. SCOBIE.

The Abernethian Room,
St. Bartholomew's Hospital.

Since the information in the letter by "The Spheroids" purported to come from a member of the team, Mr. Watkins assumed that it was accurate. We apologise for publishing the letter without an answer.—*Editor*.

CAMBRIDGE CLUB DINNER

The Editor,
St. Bartholomew's Hospital Journal.
Dear Sir,

Except for the interruptions of war, the Cambridge Graduates' Club of St. Bartholomew's Hospital has held a dinner every year since its foundation in 1876, and, with the permission of the Ladies, the male members continue this custom. This year, the dinner will be held at the Connaught Rooms, on Friday, March 25th, at 7 for 7.30 p.m., with Dr. H. F. Brewer in the Chair. The secretaries endeavour to inform every Bart's man in this country who is a Cambridge Graduate, and they would be grateful to hear from any whom the notice has not reached.

Yours, etc.,
H. JACKSON BURROWS
R. A. SHOOTER
Honorary Secretaries.

APATHY ?

The Editor,
St. Bartholomew's Hospital Journal.
Dear Sir,

We are surprised to note that Mr. Julier found it necessary in his speech to the Students' Union Council (reported in the January issue of the *Journal*), to dispel the notion of apathy among the women students of this hospital. It is not possible to dispel a notion which does not exist.

We remain, Sir,
Yours faithfully,
"THE SIXTH FLOOR."

College Hall.

Not much apathy about this, and they've won the hockey again!—*Editor*.

SALE OF PERIODICALS

The Editor,
St. Bartholomew's Hospital Journal.
Dear Sir,

At the Students' Union Council Meeting, held on February 10th, it was decided not to allow the sale of the *Evening Standard University of London Supplement* within the Hospital precincts. The reason given was that permission for the sale of *Sennet* had also been refused.

I do not object to the Council's decision, but why is the sale of *Sennet* forbidden while the *B.M.S.A. Journal* is on sale in our cloakrooms? Surely this is inconsistent.

Yours faithfully,
BRIAN HORE.

Abernethian Room.

ALDERMASTON

Dear Sir,

One can think of several reasons why not to march in protest against nuclear weapons. Why protest against a Government that is trying to keep us out of war. Surely that is the Government's aim; to provide a deterrent against enemy attack. In fact, to use Mr. Macmillan's words, we have already achieved a "stalemate of strength." This being so, where do we go from here?

Is the Government not obliged to defend us against enemy attack? Quite realistically the Government is emphasising defence rather than trying to achieve parity with Russian missile or bomber strength. This is discretion. NATO is a team, and it is right and proper that each of the members have their own speciality. Our geography places us in an advantageous position to give early warning of attack. The Government seems to be intent on pressing this advantage. The Government does not suggest that we alone can defend ourselves against surprise attack. (And surprise attack is certainly the most likely kind.) However, by co-operating with our NATO team-mates we can provide invaluable assistance for their defence. American retaliatory power might, we hope, deter enemy action against ourselves. We find ourselves then tacitly, or perhaps even enthusiastically, standing watch while our Government steers a careful course through the tricky waters of deterrents, missiles and early warning systems. Is all this very satisfying?

Few people, even counting the enthusiastic supporters of present defence policy, would not welcome some degree of international disarmament. The pressing problem is how to start disarming and how to insure our security during disarmament. However much we can, as individuals, exert pressure on the Government, we are not the Government. We can decide to play the game, but they will write the rules and appoint the referee. All we can do (and I wish we could do more) is to give our support and encouragement to those who will program disarmament.

It would be surprising if we all held the same opinion on this problem of disarmament. Even among those of us who hold disarmament desirable there is little agreement as to the way it may be achieved. Let there be no doubt, however, that marching from Aldermaston is a sign of support for disarmament. On last year's march faculty staff outnumbered students three to one. Surely the proportion should be the other way round.

Yours faithfully,
F. POPE.

Medical College,
Charterhouse Square.

Examination Results

CONJOINT BOARD

Final Examination, January, 1960

M.R.C.S., L.R.C.P.
Thomson, R. G. N.
Supplementary Pass List
Pathology

Andan, A. Goodchild, M. C.
Weaver, P. C. Tufft, I. J.
Walker, K. A. Craggs, J. C.
Gray, D. J. P. Musgrove, J. S.
Mackenzie Ross, R. K.

Medicine
Andan, A. Bonner-Morgan, B. M.
Fasan, P. O. Goodchild, M. C.

Tufft, I. J.
Roles, W.
Chawner, J. M.
Walker, K. A.

Almeyda, J. J. R.
Booth, D.

Andan, A.
Tufft, I. J.
Roles, W.
Muzio, D. M.

Gletsu, A.
Vollum, D. I.
Almeyda, J. J. R.

Surgery
Arnold, J.
Cassell, P. G.

Midwifery
Pemberton, M. J.
Gletsu, A.
Vollum, D. I.

Sports News

VIEWPOINT

After a spate of games, the Rugby 1st XV has, this year, been knocked out of the United Hospitals' Cup Competition by St. Thomas's. Our team is vastly different to that which so nearly won the Cup last year. Not only have most of last year's stalwarts left the Hospital, but also there have been a number of recent injuries. The team were five short of their full strength when playing against St. Thomas's. But still, we were defeated by a superior side.

The weather this season has so far been extremely mild, and there have been very few matches cancelled due to adverse conditions by any club. The Hockey Club, it seems, always suffers more than other clubs. It cannot play in wet conditions, nor on hard and frosty ground. Winter is hardly the time for dry pitches. Many people consider hockey to be basically a summer game. The Indians and Pakistanis are the leading teams in the world and, in both countries, players learn the game on grounds as hard as rock.

Another plea must be made on behalf of the Sports Editor for Club Secretaries to hand in their reports promptly at the end of a month, or when asked to do so. It is true that there has been a certain amount of chaos since the printing strike, but slowly everything is returning to normal. All possible co-operation is always very welcome.

RUGGER

Hospitals' Rugby Cup. Bart's v Charing Cross.
Richmond Athletic Ground. Tuesday, January 26th.

On a dull misty afternoon on the Richmond second pitch, Bart's took the field anxious to delay their path to the Second Round no longer. Rees Davies, the captain and fly half, kicked off with a gentle breeze at his back.

After a period of early pressure, when the Charing Cross pack made some penetrating hacking rushes down the touchline, the Bart's team settled down and played enterprising open Rugby. This was rewarded when, after R. R. Davies had made a break from a tight scrum on the Charing Cross 25 yard line, the ball went loose to Letchworth who picked up, passed to Harvey, who threw the ball out to Halls who went over in the corner. Pennington's kick was only just wide of the post.

With only a quarter of an hour gone, Bart's seemed well on top and were leading 3-0. However, bad heeling in the loose and untidy handling by the backs led to a long period of scrappy play and, towards the end of the first half, Charing Cross were

looking the more dangerous of the two teams. Brown was jumping particularly well in the line out for Charing Cross, and was supported better than was Orr, who jumped well for Bart's.

In the second half the play continued scrappily, although there were good foot rushes by both packs, and Letchworth in the centre showed a promising ability to penetrate the Charing Cross defence with swerving runs. Unfortunately, Bart's were unable to score again, although coming near on several occasions, and four minutes from no side, following a scrum on the Bart's twenty-five, the Charing Cross full back kicked hard and high across the Bart's goal where it was misfielded, and Hutcheson, the Charing Cross centre, came in quickly, gathered the ball, and went over near the posts. Bart's had a lucky reprieve when the kick went wide. Soon after this the whistle went.

There were two lessons to be learnt from this game by Bart's. Firstly, that the ball should have gone out to the three-quarters more often where Letchworth, with his running, and Bamford, with his kicking, at least had the measure of their opponents. Secondly, the forwards must break quicker from the loose mauls, where there was a great deal of fruitless expenditure of energy.

On the credit side, the Bart's defence was sound, with Goodall making a promising debut at blind side wing forward, and Niven showing great kicking ability at full back.

Team : P. A. R. Niven, S. Harris, A. T. Letchworth, J. K. Bamford, J. Stevens, R. R. Davies (*Capt.*), A. P. Ross, J. A. Harvey, M. Jennings, A. Knox, J. H. Pennington, M. M. Orr, D. Goodall, R. J. Jones and G. J. Halls.

Hospitals' Rugby Cup. Bart's v Charing Cross.
Second Replay. Saturday, 29th January.

On a beautiful Friday afternoon at Richmond, Bart's kicked off with the sun behind them.

Undeterred by this initial disadvantage, the Charing Cross pack were soon hacking the loose ball down into the Bart's half, much as they had done in the previous two ties.

Within minutes, following a set scrummage, a Bart's forward unwisely ventured off-side. A penalty was awarded to Charing Cross, and their full back scored with an excellent kick, to make it 3-0.

However, Bart's were undeterred by this setback, and moved the ball about with increasing confidence. Under pressure, Charing Cross gave away a number of penalties and, after twenty minutes, Pennington levelled the score with a fine 45 yard kick, and so, at half time, it looked as if it was going to be another indecisive result.

Shortly after half time Bart's began pressing strongly, and there appeared to be a better understanding between Ross at scrum half and Bamford deputising for the injured captain, R. R. Davies at stand off. But the try resulted from a good inter-passing movement among the forwards, Halls giving the ball out to B. O. Thomas, who passed quickly to Pennington, who went over near the posts. J. Stevens converted to make the score 8-3.

Charing Cross never looked like reducing this deficit, though Bart's could at no time afford to relax.

Ten minutes from the end the issue was settled when Halls, following up fast, took advantage of the absence of the Charing Cross full back, who was up in their line in a last do or die effort, picked the ball up during a forward rush and went over to make it 11-3, and Stevens again converted.

With the final score 13-3, Bart's were at last through to the second round, although their performance gave no grounds for confidence against a strong St. Thomas's side only three days later.

Team : P. A. R. Niven, S. Harris, A. T. Letchworth, J. Stevens, J. Burbridge, J. K. Bamford, A. P. Ross, B. O. Thomas, M. Jennings, A. Knox, J. H. Pennington, M. M. Orr, D. Goodall, R. J. Jones, G. J. Halls.

Hospital Rugby Cup, Second Round. Bart's v St. Thomas's. Tuesday, February 2nd.

For this match Harvey replaced B. O. Thomas in the front row of the pack. With a team otherwise unchanged from that which defeated Charing Cross in the first round of the competition, Bart's faced St. Thomas's at the Richmond Athletic Ground on a dull cold day on a muddy and inhospitable pitch.

St. Thomas's kicked off, and very soon began to look a markedly superior team. From the first line outs they easily gained possession, and their backs were allowed considerable freedom. The first score came when Boggon, the St. Thomas's captain and Number 8, picked up a loose ball on the Bart's 25, and sent his right centre through to score an

unconverted try. Soon after this he was allowed to cut through the Bart's defence to score near the post, converting the try himself. At this stage Bart's were well beaten up front, and the tackling of the back row and three-quarters was markedly irresolute, the only exceptions being Bamford and R. Jones.

For the remainder of the first half Bart's, when they got possession, attempted to work the touchline in order that the vigour of the St. Thomas's back row might be contained. There was no further score before the interval.

In the second half the Bart's performance was much improved, and though this did not result in a score, the three-quarters figured prominently in a most enjoyable display of open rugby. St. Thomas's went further ahead with another goal and a try, both scored by their scrum half, after quickly taken penalties near the Bart's line. This gave them victory by the comfortable and not unflattering margin of 16-0.

The result of this match was not perhaps surprising, for among the St. Thomas's team there were many familiar faces from last year's epic, whereas Bart's were only represented by J. Bamford, G. Halls and J. Stevens of last year's victorious team. The remainder of the team, with some exceptions, seemed surprised by the vicissitudes of Cup rugby. It is, however, a young team which shows considerable promise for the future, when enthusiastic leadership might mould them into a first-class side.



Bart's v Charing Cross. Second replay

SOCCER

United Hospitals League. Bart's v Westminster Hospital. Away. Wednesday, January 20th. Drawn 1—1.

Hoping to record their first League win Bart's put up a good fight against an improved Westminster side. The latter had the edge during the first half, the football being keen and fast. Haig played well in goal, while Davies had several good runs down the left wing, but his centres were not followed up. Turning round, Westminster continued to exert pressure, but our defence remained solid until a rather scrambled goal was conceded. One down and with the forwards never looking like scoring, all seemed lost. But Bart's fought back. With Jailler prompting the forwards, and even Kennedy moving right up, the equalising goal came when a Perriss centre was tapped home by Williams. In the closing minutes it was all Bart's, but the ball refused to find the net.

Team : G. Haig, M. Jennings, R. Kennedy, J. Jailler, B. Hore, M. Noble, B. Perriss, M. Williams, T. Herbert, H. Phillips and N. Davies.

Bart's v Caledonians. Home. Saturday, January 23rd. Lost 0—2.

Earlier in the season we had beaten Caledonians 2—1, so hopes were high for completing the double. But the opposition was stronger this time, settling down quicker to the slippery conditions. Bart's were awarded a rather unjust penalty, but Gould failed to convert. Gould was closely marked throughout the match, thus effectively blunting our attack, which again showed little goal-scoring potential. The score was 0—0 at half time. Caledonians opened their score midway through the second half when their left winger, moving into the centre, became unmarked and scored from close in. Soon after another was added following a breakaway, when Bart's were putting everything into the attack.

Team : J. Davies, M. Noble, D. Prosser, J. Jailler, B. Hore, B. Perriss, P. Savege, H. Phillips, A. Gould, M. Williams and J. Kuur.

Bart's v Royal Veterinary College. Away. Wednesday, January 27th. Won 4—3.

For this game we welcomed back Dr. Wills to the team, who showed us he is still an effective full-back. Taking advantage of the fact that R.V.C. started with only eight men, Bart's were soon one up when Prosser, with a defence-splitting pass, gave Jailler a simple goal. At the other end, a R.V.C. forward missed a glorious chance to equalise before their team was at full strength. The rest of the first half was played out without further score, the football being of a good standard considering the muddy pitch and dank weather. In the opening minutes of the second half, R.V.C. had all the initiative and were soon rewarded with an equalising goal. Against the run of the play, Bart's suddenly took a 3—1 lead. A Noble centre led to Perriss scoring; then Noble, robbing a defender inside the penalty box, scored with a low shot from an acute angle. R.V.C. hit back to score again, but a fantastic goal kick by Kennedy sent Noble away, who dribbled past two men before scoring a brilliant goal. R.V.C. reduced the arrears but, though pressing hard in the closing minutes, failed to equalise.

Team : G. Haig, M. Jennings, Dr. Wills, J. Jailler, B. Hore, R. Kennedy, N. Perriss, T. Herbert, L. Iregbulem, D. Prosser and M. Noble.

Bart's v Worcester College, Oxford. Home. Saturday, January 30th. Lost 0—2.

Through last minute changes Bart's fielded a much weakened side, yet if only the forwards had taken a few of the many scoring chances that came their way, we could have easily won this match. The defence was solid and rarely bothered and, at half time, the score sheet was blank. A similar pattern of play continued in the second half, and it wasn't until the last ten or so minutes that Worcester College scored, the first from a long range shot that was deflected into the net, the second from a weak shot that caught Davies out of position. Hore continues to improve at centre half, while Herbert in the last few games has shown himself to be a useful player.

Team : J. Davies, M. Jennings, M. Noble, P. Savege, B. Hope, T. Herbert, B. Perriss, J. Jailler, M. Williams, H. Phillips and P. Stanley.

LADIES' HOCKEY

Bart's v Atalanta 2nd. Home. Saturday, January 9th. Won.

Team : I. Tomkins, J. Tufft, R. Murray, M. Childe, E. Knight, T. Coates, J. Arnold, J. Hartley, R. Walters, S. Minns and J. Swallow.

Hospital Cup, Semi-Final. Bart's v St. Mary's Hospital. Home. Saturday, January 23rd. Won 7—1.

The game started slowly and within five minutes St. Mary's got very near to scoring, but Bart's defended well and soon scored themselves, after which they never looked back. It was a hard fast game throughout, and not as one-sided as the score might suggest. St. Mary's got very near to scoring a second time when a penalty bully was awarded after the Bart's goalkeeper sat on the ball, fortunately Miss Tomkins knew how to bully.

Team : I. Tomkins, J. Tufft, R. Murray, M. Childe, E. Knight (*Capt.*), T. Coates, J. Arnold, J. Hartley, R. Walters, S. Minns and J. Swallow.
Umpire : S. Cotton.

Bart's v Reading University. Away. Saturday, January 30th. Drawn 2—2.

This was one of the best games of the season—clean and fast on a dry warm afternoon. Bart's were playing one short, but everyone played hard and the gap was hardly noticeable. Miss Hartley played an extremely energetic game—making up for a missing member of the forward line and coming back to help the defence as well. The first Bart's goal was scored by S. Minns, and the second by J. Hartley following a long run down the field taking the ball all the way and passing at least four people *en route*. Both Bart's backs played well, although the efforts of J. Tufft were not always in the right direction!

Team : I. Tomkins, J. Tufft, R. Murray, J. Thorogood, E. Knight, T. Coates, J. Arnold, J. Hartley, S. Minns and S. Cotton.

Bart's v King's College. Away. Saturday, February 6th. Won 4—2.

Team : I. Tomkins, J. Tufft, G. Turner, M. Childe, E. Knight, T. Coates, R. Walters, J. Hartley, M. Robertson, S. Minns and S. Cotton.

TABLE TENNIS CLUB

U.L. League. Bart's 1st v Sir John Cass College.
Home. Thursday, February 4th. Won 8-2.

The Hospital team continued its unbeaten run this term with a fine win over John Cass College. J. Collier was up to his usual excellent form; whilst B. Bhagat gave us a demonstration of some excellent defensive play.

Team: J. Collier, B. Bhagat and B. Hope.

Bart's 1st and 2nd v Biochemistry Department.
Home. Tuesday, February 9th. 1st won 5-4.
2nd won 5-4.

This, our annual encounter with the Biochemistry Department, proved to be as enjoyable as ever, even if the table tennis was not of the standard seen in League matches.

1st Team: A. Miller, B. Bhagat and B. Hore.

2nd Team: A. Gallup, B. Perriss and A. Marsh.

CRICKET CLUB DINNER

A dinner was held by the Cricket Club on Wednesday, February 10th, at Diviani's Restaurant, in

honour of its retiring President, Mr. J. E. A. O'Connell¹

Approximately fifty players, both past and present, met in the Hospital Library for Sherry beforehand. After an excellent dinner, Dr. N. C. Oswald, the recently elected President, proposed a toast to the Club. In his speech he mentioned his experiences while playing for the Past against the Present, and the gravitational problems of fielding at fine leg at Chislehurst. A. C. Warr, the Captain, replied on behalf of the Club. He mentioned in particular his pleasure in seeing both Mr. White, the groundsman, and Mr. Dear, the Club umpire, present at the dinner.

Mr. W. R. Capper proposed a toast to Mr. O'Connell. He praised Mr. O'Connell, not only for his invaluable work for the Club as President in the last fifteen years, but also as a playing member while a student at Bart's. Mr. Capper was a contemporary of Mr. O'Connell's, and had the privilege of giving him his Cricket Colours. Mr. O'Connell, in reply, gave a short history of the Club from the time it was mentioned in the first *Journal* ever published in the 1890's. Dr. W. G. Grace is probably the most famous of all the past members of the Club.

The evening was brought to a very successful conclusion at "The Three Compasses."

Book Reviews

THE CRANIAL NERVES by A. Brodel. Published by Blackwell, Oxford, 1959. Crown 8vo. 141 pp., 25 figs. Price 15/-.

Any small monograph treating of cranial nerve anatomy must inevitably recall old wine in new bottles, since both the topography and much regarding the deep connections of these nerves has for so long been sufficiently well established. The present volume, however, justifies itself by the liberal inclusion of relevant clinical considerations and by its incorporation (in smaller print) of the fruits of the most recent neurological research. Thereby structure is so carefully linked with function and dysfunction as to assume its true and proper dignity. The clear and authoritative text will, therefore, make immediate appeal to anatomists, physiologists and students of medicine, whether undergraduate or post graduate. It must prove a valuable aid to those in process of gaining acquaintance with the most difficult aspect of neurology and of convenient assistance to those for whom revision may become necessary. The text is clear, attractively written and dependable. The diagrams provided are generally plain and helpful: from the nature of the case some of these cannot be other than traditional, despite the implications of their accompanying legends (e.g. Figs. 6, 11, 13); and by an unfortunate slip in Fig. 7 the hypoglossal nerve is depicted as innervating the geniohyoid muscle.

The printing is excellent: the employment of smaller type for research information maintains a sense of proportion: the neurological references given, though biased somewhat towards the Scandinavian literature, are sufficiently catholic to satisfy the most critical. The price is remarkably low,

bringing this commendable little volume within the reach of all. It may be unreservedly recommended to all who would be familiar with the *nova et vetera* of cranial nerve anatomy, whether descriptive or applied.

A. J. E. Cave.

CLINICAL CHEMICAL PATHOLOGY by C. H. Gray, D.Sc., M.D., F.R.C.P., M.R.C.S., F.R.I.C. Second edition. Published by Edward Arnold, 1959. 160 pp. Price 14/-.

This well-known little book, which fits so conveniently into the students' stethoscope pocket, has now been brought up to date and revised by Professor Gray. It is a personal, as opposed to an inclusive, book, in which the author, from his experience, dwells on those topics which are fundamental to the subject, but which the student finds difficult to understand. The first third of the book is devoted to kidney function and fluid and electrolyte balance, in which modern theory and nomenclature are exclusively employed, viz. azotaemia instead of uraemia, and "fixed base" is only occasionally mentioned, and is then placed in inverted commas. Liver function, diabetes and calcium and phosphorus balance are also clearly discussed, although the diagrams in the latter chapter are not very helpful. The explanation of endocrine function and its tests is so brief that it would only be of value in a final revision. At the end of the book is a useful account of the routine testing of urine and faeces, including the use of recently introduced proprietary reagents, which, however, have not replaced the classical methods for examination purposes.

J.C.C.

OUTLINE OF HISTOLOGY by M. M. Hoskins and G. Bevelander. Fourth edition. Published by Henry Kimpton. Price 36s.

This is a book full of pleasant surprises, not the least of which is the price! American books are usually expensive, yet here we have 332 pages of text and illustrations at a very competitive cost. Nor is the book lacking in that freshness and punch which characterises American publications. The economies seem to have been effected in the printing and binding, for this is a "paper-back" textbook and the printing, which is very attractive and a model of clarity, appears to have been done with an electric typewriter!

The chief merit of the book lies in its illustrations, of which there are 175. Gone are the peculiarly uninformative black and white photo-micrographs of the conventional histology book, and instead we are presented with a series of drawings of a quality to which we all aspire but few of us have the ability to imitate. However, in order that the student may make his own notes and drawings, a liberal supply of blank pages is included in the book. This is, then, the ideal companion to the microscope, providing a competent guide to what you see and space to record your observations.

The text is clear and to the point. The fundamentals of histology are briefly set out without long discussions of physiology such as are found in certain other books. One third of the volume is devoted to the embryology and histology of the face, jaws and teeth, and this should endear the book to dental students.

This is an ideal book to have beside you in the laboratory.

A POCKET MEDICINE by G. E. Beaumont. Fourth edition. Published by J. and A. Churchill Ltd. Price 12s. 6d.

"In this work, when it shall be found that much is omitted, let it not be forgotten that much likewise is performed . . ." Johnson.

One of the aims of Dr. Beaumont's book is that of an introduction to Medicine and a hasty review for finals. In this he generally succeeds, although in reading one must remember the admonition he quotes above. Obviously there is little scope for pathology in a book of this sort, and hence one must either be familiar with it already or be prepared to explore it in relation to the particular disease under study.

There does not appear to be rhyme or reason in his classification other than that of the system, but as the index is reasonably comprehensive, this does not matter provided that one realises that the order in which the diseases are described bears no relation to their incidence. One of the better features of the book is that of the treatment prescribed, although some of these are definitely out of date (bromides for epilepsy), in spite of revision for this edition. On the whole, the information is adequate and well presented, but I do not feel that this book would fulfil Dr. Beaumont's hopes for its use to General Practitioners or Service M.O.'s—if they were not familiar with a particular case, they would find more comprehensive information and treatment elsewhere. But for those students who so often find themselves at the mercy of British Railways or hastily require to refresh their memories, "A Pocket Medicine" may well fulfil their needs.

J.C.S.

A HISTORY OF BIOLOGY by Charles Singer. Published by Albelard-Schumann. Third and revised edition. Pp. 580+xxvi. Price 50/-.

This is a new and revised edition of a deservedly popular history of biology from classical history to the beginning of the century. It comprises three sections, the first dealing with classical and medieval biology, the second with the development of the cornerstones of modern biology, the scientific method, classification, the comparative method and evolution, and the third discusses some important problems of modern biology, the cell, the nervous system, embryology and heredity.

Short histories of a subject are usually disappointing with space at a premium the author can be neither discursive nor critical, and is compelled to present his material in terse and, often, uninteresting fashion. Dr. Singer's book escapes all these criticisms; by concentrating on essentials he has managed to produce a well-balanced and suitably critical review of biological thought. The book is interspersed with well-chosen passages and illustrations from original sources, and whilst it is realised that lack of space has prevented more liberal use of such material, the inclusion of a bibliography and guide to further reading would be a welcome addition.

The production and layout are good, and this book can be warmly recommended to all interested in biology or the wider aspects of medicine, but (especially to 1st M.B. candidates who are meeting biology for the first time, for it will give them an excellent perspective of the subject.

G.L.S.

BOOKS RECEIVED

Notes on Injections for Nurses, by T. H. White, M.B., Ch.B., D.T., M. and H. Published by John Wright & Sons Ltd. Price 2/6d.

Aids to Bacteriology for Nurses, by E. Jean Bocock, S.R.N., S.C.M., D.N.(Lond.) and Katherine F. Armstrong, S.R.N., S.C.M., D.N.(Lond.). Published by Baillière, Tindall and Cox Ltd. Price 10/6d.

General Anaesthesia (2 vols.), by Frankis T. Evans and T. Cecil Gray. Published by Butterworths. Price £7 7s. 0d.

Surgical Note Taking by Saint and Louw. Published by H. K. Lewis. Price 12s. 6d.

Biochemical Values in Clinical Medicine by R. D. Eastham. Published by J. Wright and Sons. Price 15s.

Aetiology and Arrest of Pre-eclamptic Toxaemia by K. D. Satzmann. Published by H. K. Lewis. Price 10s. 6d.

Outline on Orthopaedics by J. C. Adams. Published by Livingstone. Price 35s.

Practical Procedures in Clinical Medicine by R. I. S. Baylis. Published by Churchill.

A Short History of Nursing by W. R. Bett. Published by Faber. Price 12s. 6d.

Practical Electrotherapy for Physiotherapists by B. Savage. Published by Faber. Price 30s.

Contraceptive Technique by Helena Wright. Published by Churchill.

Acknowledgement in this column does not preclude a review.

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continued from January issue

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